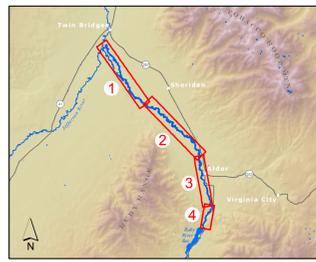
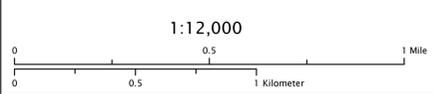


■ 2009 Channel
■ Historic Migration Zone (1955-2009)
■ area of mapped channel occupation based on 1955, 1995 and 2009 air photos
■ Erosion Buffer
 100-yr erosion buffer based on reach-scale mean migration rate; extended from 2009 banklines
■ Avulsion Potential Zones
 areas with relic channel remnants prone to reactivation
■ Moderate hazard
■ High hazard
■ Restricted Avulsion Hazard Area

■ Composite CMZ
 area encompassing 1955-2009 channel, and erosion buffer
— Reach Boundaries
— Riprap/Armor

Ruby River Channel Migration Zone

Madison County, Montana



The boundaries developed on the Channel Migration Zone maps are intended to provide a basic screening tool to help guide and support management decisions within the Ruby River corridor and were not developed with the explicit intent of providing regulatory boundaries or overriding site-specific assessments. The criteria for developing the boundaries are based on reach scale conditions and average historic rates of change. The boundaries can support river management efforts, but in any application, it is critical that users thoroughly understand the process of the CMZ development and its associated limitations.

Primary limitations of this reach-scale mapping approach include: the potential for an underestimation of short-term migration rates in discrete areas that are eroding especially rapidly, the potential for the river to migrate beyond the mapped CMZ boundary, as well as limitations in mapping of site-specific geotechnical attributes of banklines. As such, we recommend that these maps be supplemented by site-specific assessment where near-term migration rates or site geology and associated bankline retreat rates create anomalies in the reach-averaging approach.

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